

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

In re Application of: Confirmation No.: **3547**  
**Youngbok SON; Jinyouk SHIN; Sang-Hun BAE and Sung-Hwa LEE** Group Art Unit: **3723**  
Serial No.: **10/579,735** Examiner: **Scruggs, Robert J.**  
Filed: **May 18, 2006** Customer No.: **34610**  
For: **VACUUM CLEANER**

**APPELLANT'S REPLY TO EXAMINER'S ANSWSER**

U.S. Patent and Trademark Office  
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Sir:

This Reply is submitted in response to the Examiner's Answer issued on November 22, 2010 in connection with the Appeal of the rejection of the above captioned application.

At pages 9 and 14 of the Examiner's Answer, in response to Appellants' assertion that modifying Waldhauser's floor cleaner to direct a suction flow through the brush 22/brush housing 20 would destroy the originally intended utility and functionality of Waldhauser's floor scrubber, the Examiner asserts that such intended utility would not be destroyed because the brush 22 would still function as a cleaning brush. However, in making this statement, the Examiner is not taking into consideration Waldhauser's intentional inclusion of tubes 26 to spray cleaning fluid specifically into this area to provide for wet cleaning, and Waldhauser's intentional

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use of rubber squeegees 34 and 40 fore and aft of this area to draw the dirty cleaning fluid away from the surface after cleaning. Regardless of any of the teachings of Nordeen, application of a suction force through the brush 22/brush housing 20 of Waldhauser's floor scrubber would degrade the cleaning quality provided by the design as originally disclosed. Thus, Appellants maintain their original position as set forth in the Appeal Brief, as well as in previous replies to Office Actions.

At pages 11 and 15 of the Examiner's Answer, in response to Appellants' assertion that neither Waldhauser's floor scrubber nor Nordeen's vacuum cleaner has any discernable bottom surface, and thus such a bottom surface necessarily cannot separate the inlet into the brush 22 and the inlets into the squeegees 34 and 40, the Examiner re-asserts the position that a bottom end of the inverted U-shape of the brush housing 20 forms such a bottom surface of an outer casing that separates these inlets. Appellants respectfully disagree.

Independent claim 1 recites that an inlet into the at least one hair tunnel and an inlet into the suction hole are spaced apart from each other on the bottom surface of the outer casing with a corresponding portion of the bottom surface of the outer casing positioned therebetween. The recitation of "the bottom surface" of the outer casing is indicative of the lowermost surface of the casing, and not an area of an inner casing that is positioned in some portion of an outer casing that is below a centerline of such an outer casing. The outer casing that defines the outer periphery of Waldhauser's cleaning nozzle is clearly the outer wall which defines the outer periphery of the plenum chamber 46, no portion at all of which is positioned between the area in

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which the brush 22 is housed and the squeegees 34 and 40. Appellants maintain the position that the Examiner's interpretation of Waldhauser is unreasonably broad, and made only in light of the disclosure of the application currently under appeal.

At pages 12 and 13, the Examiner asserts that a suction hole could be incorporated into the Waldhauser's floor cleaner based on the teachings of Nordeen as shown in the annotated Figure 3 shown in the Examiner's Answer. However, independent claim 1 recites that a vacuum pressure generated by a suction motor draws substances in through a suction hole formed in a bottom surface of an outer casing of the suction head and into the suction path, and that a brush is rotatably installed in the suction hole of the suction head, and configured to rotatably contact a surface to be cleaned. The suction hole in Waldhauser's floor cleaner is necessarily at one or both of the squeegees 34 and/or 40. Even if an additional suction hole is formed in the brush housing 20, as suggested by the Examiner, the brush 16/17 disclosed by Nordeen is not installed in the suction hole 30/31. Thus, even the combination of Waldhauser and Nordeen does not disclose or suggest a vacuum pressure generated by a suction motor draws substances in through a suction hole formed in a bottom surface of an outer casing of the suction head and into the suction path, and that a brush is rotatably installed in the suction hole of the suction head, and configured to rotatably contact a surface to be cleaned, as recited in independent claim 1.

In response to the Examiner's assertions regarding the features of claims 2-4, 6 and 8-12 at pages 15-20 of the Examiner's Answer, Appellants maintain the position as set forth above and in the Appeal Brief.

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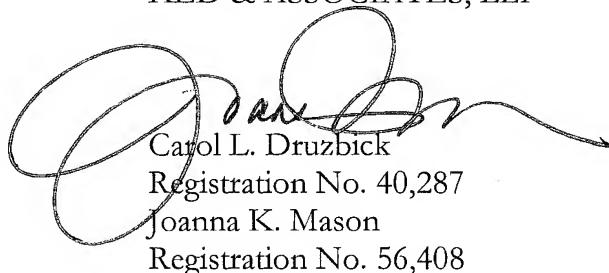
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In response to the Examiner's assertions regarding the features of claim 7 at pages 20-21 of the Examiner's Answer, Appellants maintain the position as set forth above and in the Appeal Brief.

For the reasons set forth above, and for the reasons set forth in Appellants' September 9, 2010 Appeal Brief, it is respectfully submitted that Waldhauser, Nordeen and Martinez, either alone or in combination, neither disclose nor suggest a vacuum cleaner as claimed in the application under appeal. It is respectfully requested that the Honorable Board reverse the rejections set forth in the April 9, 2010 Office Action, and pass this application to issuance.

Respectfully submitted,  
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